

Supplementary Material S1: Search Strategies

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((Advance care planning [mh] OR "advance care" OR "advance healthcare planning" OR "advance health care planning" OR "advance medical planning" OR "advance directives" [mh] OR "advance care directives" OR "advance care directive" OR "power of attorney" OR "advance directives" OR "advance statement" OR "advance statements" OR "advance decision" OR "advance decisions" OR "advance medical directive" OR "advance medical directives" OR "advance medical" OR "patient advance" OR living wills [mh] OR "living wills" OR "living will" OR "Resuscitation Orders"[Mh] OR "Resuscitation Orders" OR "Resuscitation Order" OR "Do-Not-Resuscitate Orders" OR "Do-Not-Resuscitate Order" OR "Withholding Resuscitation" OR "Resuscitation Decisions" OR "Resuscitation Decision" OR "life prolonging" OR "life sustaining" OR "Physician Orders for Life-Sustaining Treatment" OR POLST)) AND (("Randomized Controlled Trials as Topic"[Mh]) OR ("Randomized Controlled Trial" [Publication Type]) OR RCT OR "randomized controlled trials" OR "randomized clinical trials" OR "randomized clinical trial" OR "randomized controlled trial") Filters: published in the last 10 years; English

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Embase:

Query('advance care planning'/exp OR 'advance care planning' OR 'advance healthcare planning' OR 'advance medical planning' OR 'living will'/exp OR 'living will' OR 'advance directives' OR 'advance care directives' OR 'advance care directive' OR 'power of attorney' OR 'advance statement' OR 'advance statements' OR 'advance decision' OR 'advance decisions' OR 'advance medical directive' OR 'advance medical directives' OR 'patient advance' OR 'living wills' OR 'resuscitation decisions' OR 'resuscitation decision' OR 'life sustaining treatment'/exp OR 'life sustaining treatment' OR 'life prolonging' OR 'physician orders for life sustaining treatment'/exp OR 'physician orders for life sustaining treatment' OR polst) AND ('randomized controlled trial'/exp OR 'randomized controlled trial' OR rct OR 'randomized controlled trials' OR 'randomized clinical trials' OR 'randomized clinical trial') AND (2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py OR 2015:py OR 2016:py OR 2017:py OR 2018:py OR 2019:py OR 2020:py) AND [english]/lim

Supplementary Table S1: Overview of Included Studies

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Aasmul, 2018 ¹²⁰	Process	545 patients, 67 nursing homes	Nursing Home	Nursing home staff and residents; Residents ≥65 years old; Norway	Clinician Training: Education program about communication for nursing home staff	Action	Frequency of contact between family and nurses	Increased: OR 3.9; 95% CI: 1.6, 9.4); p=0.002
						Quality of Care	Satisfaction with Communication	Improved: B = 0.4, 95% CI: 0.02, 0.85), p=0.04
						Health Status	Nursing staff distress	Reduced: B = -1.8, 95% CI: -3.1, -0.4), p=0.012
Aslakson, 2019 ¹³³	Preferences	92	Outpatient	Surgical Oncology patients, ≥18 years old; USA	Video: Surgical oncology, patients and families discussed ACP and recovery from major surgery, identifying surrogate	Action	Identify surrogate	Increased: not significant 23% vs 10%, p=0.18
						Health Status	Hospital anxiety and depression	No difference in between groups
Au, 2012 ¹¹³	EOL	376	Outpatient	Patients with COPD; USA	Written: Patient form given to clinicians with desire for ACP, barriers, preferences	Quality of Care	Satisfaction: Quality of End of Life communication	Improved: 10.7 vs 6.3 points, p=0.03
						Action	Documentation of discussion	Increased: 30% vs 11%; p<.001
Barnato, 2017 ¹³⁰	Process	38 PCPs, 392 patients	Outpatient	Primary Care, Medicaid ≥65 years; USA	Multimedia: Financial incentive to complete PREPARE program	Action	Quantity of conversations	Increased 15%, p=.039
Bernacki, 2019 ⁹¹	No definition	278 patients, 91 clinicians	Outpatient	Advanced cancer patients and oncology clinicians, USA	Clinician Training: Clinician communication guide & training, EHR documentation template, patient guide	Quality of Care	Goal Concordant Care	No change
						Health Status	Well-being	No change
						Quality of Care	Satisfaction with care: therapeutic alliance	No change

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
						Health Status	Anxiety, Depression	Less anxiety p=0.02; Depression less only at 14 weeks, p=.04
Bradley, 2017 ¹²⁸	AD only	282	Outpatient	Baby-Boomers born 1946-1965; Australia	Multimedia: Online education modules about ADs with reminders	Action	AD Completion	No change, reminders group: (delta = 1%, p = .48); No change, education group (delta = 5%, p=.44)
Bravo, 2016 ^{*85}	Process	235 Patient and Family dyads	Outpatient	Community dwelling, ≥ 70 years and surrogates; Canada	Facilitated Discussion: by Social Worker, reviewed preferences booklet	Action	AD Completion	80% of participants documented preferences
						Quality of Care	Congruence between patient and surrogate	Not effective in improving proxies' ability to predict goals of care
Bravo, 2018 ^{*94}	Preferences	235 Patient and Family dyads	Community	Community dwelling, ≥ 70 years and surrogates; Canada	Facilitated Discussion: by Social Worker, reviewed preferences booklet	Process	Self-Efficacy: Confidence levels over time	Improved: OR 1.6, p=0.025
Brazil, 2018 ⁸⁴	Process	197 Patient and Family dyads; 23 nursing homes	Nursing Home	Family caregivers of nursing home residents with dementia; UK	Facilitated Discussion: Respecting choices trained, and staff orientation	Quality of Care	Surrogate Decisional Conflict	Reduced: -10.5, 95% CI: -16.4, -4.7; p<0.001
						Quality of Care	Satisfaction with care, Family Perceptions of Care Scale	Improved: 8.6, 95% CI: 2.3, 14.8; p=0.01
Chan, 2018 ¹⁷³	Process, Delphi	230 Patient and Family dyads	Community	Community dwelling, recently discharged with malignant or chronic disease; Hong Kong	Facilitated Discussions: "Let Me Talk" Cantonese program, 3 visits with trained nurse, workbook: "My Stories; My Views; My Wishes"	Quality of Care	Congruence between patient and surrogate	Improved at 6 months only (p< 0.05)
						Quality of Care	Patient Decisional Conflict	Reduced: p=0.003
						Values	AD Completion	Increased: 16.5% vs 1.7%, p≤.001
Chiu, 2019 ¹¹⁰	Process	123	Outpatient	Community dwelling, >55 years; Taiwan	Multimedia: 4-week educational program, classes, written material	Values	AD completion	Increased: p<.001
						Process	Knowledge of CPR	Increased: p<.001
						Process	Attitudes toward ACP	No Change: p=0.39
Cohen, 2019 ^{*172}	Goal-directed care	328 Patient and Surrogate dyads	Nursing Home	Nursing home residents, >65, surrogates; USA	Video: For Dementia, 12-minutes, Describing 3 levels of care: Intensive, Basic, Comfort	Quality of Care	Goal Concordant Care	No change between trial arms

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Courtright, 2017 ¹¹⁸	Process	321	Outpatient	ESRD on dialysis adults, USA	Written: Expanded options for AD "no and 3 yes options"	Action	AD completion	No Change: 12.2 vs 13.1%; p=0.80
						Process	Readiness to document	Improved: 85.3% vs 71.9%; p=0.004
						Quality of Care	Satisfaction with decision making	No change; p=0.65
						Health Status	QOL	No change; p=0.63
Detering, 2010 ⁶²	Process	309	Inpatient	Elderly, >80 years old; Australia	Facilitated Discussions using "Respecting Choices" model to identify goals, values, and beliefs in order to document and discuss ACP	Quality of Care	Goal Concordant Care	Improved: 86% vs 30%; p<.001
						Health Status	Impact of death on family (anxiety, depression, PTSD)	Reduced: 5 vs 15; p<.001
						Quality of Care	Satisfaction with Communication	Improved: p<.001
Doorenbos, 2016 ^{* 86}	GOC	80	Outpatient	CHF, >18 years; USA	Facilitated Discussion: nurse-led education about CHF trajectories and provider shared decision-making training	Action	Quantity of conversations	Improved: 58% vs. 2.6%, P<0.001
						Quality of Care	Satisfaction with Communication	Improved: p=0.03
El-Jawahri, 2010 ⁶⁴	Process	50	Outpatient	Cancer, >18 years; USA	Video: Describing 3 levels of care: Life-prolonging, Limited, Comfort	Action	Preferences for EOL care	Increased: Comfort Care 91% vs 22%; p<.0001
						Quality of Care	Decisional Conflict	Improved: 13.7 vs 11.5; p<.002
El-Jawahri, 2015 ⁹⁶	LST	150	Inpatient	Seriously ill, >60 years, USA	Video: 3-minutes, describing CPR and intubation with likely outcomes	Action	Preferences for CPR and intubation	Increased: CPR: 64% vs 32%, p<.0001; Intubation: 72% vs 43%, p<.0001
						Action	Documentation of DNR/DNI	Increased: 57% vs 19%, p<.0001
						Process	Knowledge of CPR/intubation	Increased: 4.11 vs 2.45; p<.0001
El-Jawahri, 2016 ¹⁰²	Process	246	Outpatient	CHF, >64 years, USA	Video: 6-minutes, Describing 3 levels of care for CHF: Life-prolonging, Limited, Comfort	Quality of Care	Goal Concordant Care	Increased: kappa=0.13 vs -0.05
						Action	Preferences for goals of care	Increased comfort care 51% vs 30%; p<.001
						Process	Knowledge of goal concordant care	Increased: 4.1 vs 3.0; p<.001

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Fischer, 2018 ⁸²	No definition	223	Outpatient	Latinos, cancer stage III/IV, >18 years, USA	Facilitated Discussion: Apoyo con cariño, 5 home visits from patient navigator, education packet	Action Health Care Utilization Health Status	Documentation or discussions Hospice use QOL	Improved: 65% vs 36%, p<.001 No change No between group differences
Goossens, 2019 ¹²¹	Process	311 staff	Nursing Home	Nursing Home Staff; Belgium	Clinician Training: Shared decision making training	Action Process	Quantity of conversations Attitudes toward shared decision	Increased: p<0.001 Improved: p=0.031
Green, 2018 ¹⁰⁵	Process	285 Patient and Family dyads	Outpatient	Seriously ill, >18 years, and their surrogate	Multimedia: Making your wishes known interactive online decision aid	Process Process	Surrogate self-efficacy Surrogate preparedness	No between group differences Increase: p=0.03
Green, 2019 ¹⁰⁷	Preferences	285 Patient and Family dyads	Outpatient	Seriously ill, >18 years, and their surrogate	Multimedia: Making your wishes known interactive online decision aid	Action	Treatment preferences	Less CPR and MV: OR=0.31 and 0.34
Halpern, 2013 ¹¹⁷	No definition	132	Outpatient	Seriously ill, >50 years old	Written: Default AD options	Action Quality of Care	Preferences for EOL Care Satisfaction with EOL planning	Comfort measures; 77% vs 43% No between group differences
Hanson, 2011 ¹¹⁵	No definition	256 Patient and Surrogate dyads	Nursing Home	Advanced dementia and their surrogates; >65 years; USA	Written: Decision aid, dementia feeding treatment options	Quality of Care Process Action	Surrogate Decisional Conflict Surrogate knowledge of feeding options Documented discussions	Reduced: 1.65 vs 1.97, p<.001 Increased: 16.8 vs 15.1, p<.001 Increased: 46% vs 33%, p=.04
Hanson, 2017 ¹²⁷	GOC	302 Patient and Family dyads	Nursing Home	Advanced dementia and their surrogates; >65 years; USA	Facilitated Discussions: with GOC video decision aid for dementia	Quality of Care Quality of Care Health Status Health Care Utilization	Concordance with Clinicians Satisfaction in communication Mortality Hospital transfers from Nursing Home	Improved: 88% vs 71; p=.001 Improved: 3.7 vs 3.0; p=.02 No difference, p=.13 Reduced: RR 0.47, 95% CI 0.26, 0.66
Houben, 2019 ¹²⁹	Preferences	165 patients,	Outpatient		Facilitated Discussion: nurse-led ACP sessions in	Quality of Care	Satisfaction with Communication	Improved: 2.37, 95% CI 1.76, 2.98; p<.001

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Johnson, 2018 ¹³⁶	Process, Delphi	208	Outpatient	Cancer, incurable, >18years	Facilitated Discussion: respecting choices model	Action	Documentation	Improved: 52% vs 30%, p=0.003
						Health Status	Symptom Anxiety	No between group differences
						Quality of Care	Satisfaction with care (quality of death)	No between group differences
						Quality of Care	Goal Concordant Care	Increased, not significant 43% vs 33%, p=0.27
						Health Status	Surrogate well-being	No between group differences
Kang, 2019 ¹⁷⁰	Goal-directed care	272	Community	Healthy general population >20 years; Korea	Video: EOL care options, CPR, Palliative Care information	Action	Documentation	Increased: 74% vs 6%, p<.0001
						Process	Readiness to document	Improved: 68% vs. 39%; p<.001
						Process	Knowledge of Palliative Care	Increased: p=0.036
Kirchhoff, 2010 ¹³⁷	No definition	313	Outpatient	CHF or ESRD patients, >18 years; USA	Facilitated Discussion: "Patient-Centered ACP Structured Interview"	Action	Preferences for CPR and palliative care	Increase in opposition to CPR, 10%, p=0.024
						Quality of Care	Surrogate and patient congruence	Increased: Kappa ranges 0.61-0.78 vs 0.07-0.28; p<0.01
Kirchhoff, 2012 ⁹³	EOL	313	Outpatient	CHF or ESRD patients, >18 years; USA	Facilitated Discussion: "Patient-Centered ACP Structured Interview"	Quality of Care	Goal Concordant Care	Trended towards less aggressive care but non-significant
Lindquist, 2017 ¹⁰³	Life-span planning	385	Community	Community dwelling older adults >65; USA	Multimedia: PlanYourLifespan.org interactive tool	Action	Preferences for hospitalizations, falls, memory loss	Increase: p = 0.005
						Action	Communication of plans	Increase: 1.25 points, CI 0.37, 2.12, p = 0.005
						Process	Knowledge of importance of planning	Increase not significant, p=0.076
Lum, 2018 ¹⁷	Process, Delphi	414	Outpatient	Veterans, >60 years, chronic illness; USA	Multimedia: PREPARE online interactive website and low literacy AD	Action	Documentation	Increased: p<0.001
						Action	Composite Engagement Survey	Increased: p<.005

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
						Process	Composite Engagement Survey	Increased: p<0.005
Lyon, 2019 ¹⁷⁵	Process, Delphi	233	Outpatient	Patients with HIV and surrogates, >21 years; USA	Facilitated Discussion: GOC conversations, treatment preferences, five wishes AD	Action	AD completion	Improved: 59% vs 17%; p<0.0001
Malhotra, 2020 ¹³²	Discussions	282	Outpatient	Heart failure, NYHA-III and IV, ≥21 years; Singapore	Facilitated Discussion: Respecting choices model, clinician facilitated conversations	Quality of Care	Goal Concordant Care	Non-significant: 35% vs 44%; p=.47
						Quality of Care Process	Surrogate Decisional conflict	Reduced: -10.8, p<.01
							Knowledge, illness understanding	No change
						Action	Communication of plans	Increased: 1.3, p=0.04
						Health Status	Anxiety, Depression, QOL	No change
Martin, 2019 ¹¹⁶	Process	326 patients 6 nursing homes	Nursing Home	Nursing home residents; Australia	Written: Goals of patient care documents for nursing home use	Health Care Utilization	Hospital/ED Admissions	Reduced by 40% at 1 year, p=0.044
						Health Care Utilization	Difference in hospital bed-days	Not significant, p=0.48
						Health Status	Mortality	No difference, p=.21
Mitchell, 2018 ¹⁷¹	No definition	500 Patient and Surrogate dyads	Nursing Home	Nursing home residents, >65, surrogate; USA	Video: For Dementia, Describing 3 levels of care: Intensive, Basic, Comfort	Action	Documented Do Not Hospitalize orders at 6 months	No Change, 63% in both arms; aOR=1.08, 95% CI 0.69,1.69
						Action	Preferences for comfort care	No between group differences
Neergaard, 2019 ¹⁴¹	EOL	205	Outpatient	Terminally ill patients; Denmark	Facilitated Discussion: by physician, respecting choices	Health Status	Mortality in Non-Cancer patients at 12 months	Improved: 90% vs 67%; p=0.004
Overbeek, 2018 ¹⁷⁴	Process	160	Community or Nursing Home	Frail, Nursing Home or home-care community dwelling residents, >75 years older; Netherlands	Facilitated Discussion using "Respecting Choices" model	Process	Patient activation (PAM)	Not Significant, p=.42
						Action	AD completion	Increased: 93% vs 34%, p<.001
						Health Status	QOL	Not Significant, p=.71
Paladino, 2019 ¹¹¹	Communication	278 pts, 91 clinicians	Outpatient		Clinician Training: Clinician communication	Quality of Care	Goal concordant care	Not significant: -0.3 (-1.2 to 0.6)

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Patel, 2018 ⁸³	EOL decision making	213	Outpatient	Cancer patients at high risk of death; USA Cancer, Veterans, USA	guide & training, EHR documentation template, patient guide Facilitated discussions: 6 month program with lay health worker	Action	Documentation of conversations	Improved: 96% vs 9%; p=0.005
						Action	Documentation of conversations	Increased: GOC, 92.4% vs 17.6%, p<.001; ADs, 67.6% vs 25.9%, p<.001
						Quality of Care	Satisfaction with care	Increased: 9.16 vs 7.83; p<.001
						Health Care Utilization	Hospice use	Increased: 35.2% vs 18.5%, p=.006
						Health Care Utilization	Hospital/ED Admissions	Non-significant: Lower in intervention
Periyakoil, 2017 ¹⁶⁹	Process	400	Community	Adults, >40; USA	Multimedia: Low-literacy, online AD	Health Care Utilization	Cost	Non-significant: Lower in intervention
						Process	Readiness	Improved: p<.001
Reinhardt, 2014 ¹²⁶	EOL decision making	110	Nursing Home	Surrogates of patients with advanced dementia; USA	Facilitated Discussion: by Palliative Care team	Action	Documentation preference	Improved: p<.001
						Quality of Care	Surrogate satisfaction with care	Increased, p<.05
						Action	Documentation	Increased, 100% vs 87.5%; p<.01
Reinke, 2017 ¹²⁶	Process	376	Outpatient	COPD; USA	Written: Patient ACP Feedback form for clinicians Facilitated Discussion: Social work coaches of a 1 hour patient session, given Question Prompt Lists	Health Status	Surrogate well being	No significant main effects
						Action	AD completion and discussions	Not significant: p=0.55
Rodenbach, 2017 ⁸⁹	EOL decision making	265 patients, 24 oncologists	Outpatient	Advance cancer; >21 years; and their oncologist; USA	Facilitated Discussion: Social work coaches of a 1 hour patient session, given Question Prompt Lists	Action	Quantity of questions asked	Increased: 16.7% vs 5.8%; p =.03
Saevareid, 2019 ¹²²	Process, Delphi	151	Nursing Homes	Cognitive impairment or end stage dementia, >70 years; Norway	Clinician Training: nursing home staff, ACP training, role play conversations, pocket guide	Action	Documented conversation	Increased: 37% vs 10%; p<.001
						Action	Preferences, hopes, and worries	Increased: p=0.006

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Schubart, 2019 ¹³⁵	Process	200	Outpatient	Cancer; USA	Multimedia: Making your wishes known interactive online decision aid	Action Quality of Care	Values and Preferences Goal Concordant Care	No between group differences No between group differences
Schulz, 2014 ⁹⁹	EOL decision making	217	Nursing Home	Family caregivers of recent nursing home residents; USA	Video: Modules regarding long term care residents' trajectories, caregiver emotion	Health Status Health Status	Caregiver depression, anxiety, burden Complicated grief	No effect Reduced: p=0.01
Sinclair, 2017 ¹³⁴	Process	149	Outpatient	Severe lung disease (lung cancer, COPD, ILD), >18 years	Facilitated Discussion: by nurse, assisted in AD completion	Action	Documentation or discussions	Increased: 51% vs 14%, p<.001
Sinclair, 2019 ¹⁴²	End-of-life care	149	Outpatient	Severe lung disease, >18 years	Facilitated Discussion: nurse-led, prompted further discussions with doctors, assisted in AD completion	Quality of Care Health Status Health Care Utilization	Health care satisfaction Mortality Health care utilization in last 90 days	Not significant, p=0.93 No association found Reduced: p<0.001
Skorstengaard, 2019 ¹⁴³	Process	205	Outpatient	Seriously ill, terminally ill (lung, heart, cancer diseases), >18 Denmark	Facilitated Discussion: by physician, respecting choices	Health Status Quality of Care Health Status	QOL Satisfaction with care Depression and anxiety	No between group differences No between group differences No between group differences
Skorstengaard, 2019 ¹⁴⁴	Process	205	Outpatient	Seriously ill, terminally ill (lung, heart, cancer diseases), >18 Denmark	Facilitated Discussion: by physician, respecting choices	Health Care Utilization Health Care Utilization	Fulfillment of preferred place of death Time spent in hospital	No between group differences No between group differences
Smith, 2020 ¹⁰⁶	Decision Making	252	Outpatient	Metastatic breast cancer, >18; USA	Multimedia: Four Conversations, interactive videos and workbook	Quality of Care Process Process	Decisional conflict Decision self-efficacy and QOL Preparedness to make decisions	Not significant, p=0.07 No between group differences Improved
Song, 2010 ¹²⁵	No definition	262	Outpatient	Homeless adults, >18; USA	Facilitated Discussion	Action	AD completion	Increased: 38% vs 13%, p<.001

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Song, 2010 ¹⁴⁹	Communication	19	Outpatient	African Americans with CKD on Dialysis, >18 years; USA	Facilitated Discussion: "Patient-Centered ACP Structured Interview"	Quality of Care Quality of Care Health Status Process	Patient-Surrogate congruence Patient Decisional Conflict Spiritual well-being Self-efficacy	Increase, p<.05 No between group differences No between group differences No between group differences
Song, 2015 ⁴⁶	Process	420 (210 dyads)	Outpatient	Dialysis Patients and their surrogates; >18 years old; USA	Facilitated Discussion: Nurse-led, in-depth discussion and follow-up home visit	Quality of Care Quality of Care Health Status Process	Congruence on GOC Decisional conflict Bereavement outcomes, anxiety/depression, PTSD symptoms after pt death Self-efficacy	Increased: OR: 1.89, 95% CI 1.1,3.3 No between group differences Reduced Improved
Song, 2016 ¹³⁹	No definition	141 Patient and Surrogate dyads	Outpatient	Sub-group of African Americans Dialysis patients and their surrogates;>18 years old	Facilitated Discussion: Nurse-led, in-depth discussion and follow-up home visit	Quality of Care Process Health Status	Congruence on GOC Self-efficacy Bereavement outcomes, anxiety/depression, PTSD	Improved: OR 2.31, p=0.018 Improved: p=0.021 Reduced: p=0.003
Stein, 2013 ⁸⁸	DNR	120	Outpatient	Advanced Cancer; Australia	Facilitated Discussion: by trained psychologist in shared decision making and pamphlet	Action Health Care Utilization Health Status Health Status	Presence of a DNR order before death Place of death Caregiver burden Depression, anxiety; caregiver burden; process knowledge	Improved: p=0.03 Avoid hospital death: 19% vs 50%, p=.004 Reduced: p=0.05 No between group differences
Sudore, 2017 ¹⁰⁴	Process	414	Outpatient	Veterans, >60 years, chronic illness; USA	Multimedia: PREPARE online interactive website and low literacy AD	Action Action Process	Documentation or discussions Composite Engagement Survey Composite Engagement Survey	Improved: 35% vs 25%, p=0.04 Improved: p<.001 Improved: p<.001

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Sudore, 2018 ²³	No definition	86	Outpatient	Diverse primary care patients, >55, safety-net hospital, chronic or serious illness; USA	Multimedia: PREPARE in Spanish, online interactive website and low literacy AD	Action	Documentation or discussions	Improved: 43% vs 32%, p<.001
						Action	Composite Engagement Survey	Improved: p<.001
						Process	Composite Engagement Survey	Improved: p<.001
Sulmasy, 2017 ¹⁴⁰	EOL decision making	166 Patient and Surrogate dyads	Outpatient	ALS patients or GI malignancies, >18 years, and surrogates	Facilitated Discussion: by nurse	Process	Decision Control Preferences	Improvement
						Process	Self-efficacy	No change
						Health Status	Surrogate stress	Reduced: p=.046
						Health Status	Caregiver burden	Increased: p<.01
Tang, 2019 ⁹⁸	EOL and LST preferences	460	Outpatient	Cancer, terminally ill, Taiwan	Video: understanding ACP and LST options, psychosocial support, workbook	Quality of Care	Goal concordant care	No change
						Health Status	QOL	No change
						Health Status	Anxiety, Depression	Less anxiety p=.004 and depression p=.038
Tieu, 2017 ¹¹⁴	Process	2526	Outpatient	Primary care patients, >65 or older; USA	Written: with EHR system prompt and reminder	Action	AD completion	Increased: OR 3.2 95% CI 1.6-6.3
						Quality of Care	Clinical utility of completed AD	Increased: p<.02
Tilburgs, 2019 ¹¹⁴	Process	38 Clinicians, 73 patients	Outpatient	General practitioners of patients with dementia, >65 years; The Netherlands	Clinician Training: Two, 3-hour interactive workshops for clinicians, shared decision making, ACP conversations	Action	Documented ACP	Increased: 49% vs 14%, p=.002
						Action	Patient preferences	Improved: p<.001
						Health Status	QOL	No between group differences
Volandes, 2011 ¹⁷⁶	No definition	Rural, Elderly	Outpatient	Rural, Elderly >65 years; USA	Video: Describing 3 levels of care: Life-prolonging, Limited, Comfort	Action	Patients preferences for EOL care	Increased: Comfort Care 91% vs 72%, p=.047
Volandes, 2012 ¹⁰¹	Care Preferences	51	Nursing Home	Skilled nursing facility, >65 years old; USA	Video: Describing 3 levels of care: Life-prolonging, Limited, Comfort	Action	Patient Preferences for EOL care	Increased: Comfort Care 80% vs 5%, p=.02
						Quality of Care	Concordance between preferences and DNR order	Not significant

Article	Definitions	Sample Size	Setting	Population / Country	Intervention	Outcome Domain	Outcomes ^a	Results ^b
Volandes, 2013 ¹⁷⁷	EOL decision making	150	Outpatient	Cancer, “advanced”; USA	Video: Describing CPR and likelihood of resuscitation	Action	Patient preferences for CPR	Less CPR: 20% vs 48%, p<.001
						Process	Knowledge of CPR	Increased: p<.001
Walczak, 2017 ¹⁷⁸	EOL decision making	110	Outpatient	Cancer, “advanced or metastatic” >18 years old; Australia	Facilitated Discussion: nurse-led, question prompt lists, two visits	Action	Quantity of questions asked	No between group differences
						Health Care Utilization	Consultation length	No between group differences
Wickersham, 2019 ¹¹⁹	AD only	2748	Outpatient	Primary care patients, >65; USA	Written: Five wishes AD vs Oklahoma AD	Action	AD completion	Improved: p<.0001
						Action	Preferences for documentation	Improved: p<.0001
Yun, 2019 ⁹⁷	EOL care	204	Outpatient	Advanced Cancer, >20 years; Korea	Video: 20-minute video decision support aid and ACP booklet, LST options, hospice care, preparation	Action	Preferences for EOL care	Increased: p=.003
						Process	Knowledge of ACP	Increased: p=.005
						Process	Readiness	Increased: p=.007
						Quality of Care	Satisfaction with decision making	No change, p=.321

Footnotes:

a Primary outcomes are listed first, followed by secondary outcomes

b Differences are listed in Intervention vs Control order

* Jadad 5-Point Quality Score of 2, indicating poor quality

Abbreviations:

AD: Advance Directive; aOR: adjusted odds ratio; CHF: Congestive Heart Failure; CI: Confidence Interval; COPD: Chronic Obstructive Pulmonary Disease; CPR: Cardiopulmonary resuscitation; EHR: Electronic Health Record; ESRD: End Stage Renal Disease; EOL: End of Life; GOC: Goals of Care; ILD: Interstitial Lung Disease; LST: Life-Sustaining Treatment; MV: Mechanical Ventilation; NYHA: New York Heart Association; OR: Odds Ratio; QOL: Quality of Life; RR: Relative Risk